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## Environmental and Land-based Studies

### Level 3 Unit 7: Sustainable management and development of resources

#### Sample scheme of work

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This is an example of a scheme of work. You can adjust it or extract content to create a scheme of work to suit your delivery needs. It can also be adjusted by adding theory workshops to support learners who have/need additional learning time.

This unit is assessed through an examination set and marked by AQA–City & Guilds. All unit outcomes are equally weighted.

<b>Total GLH</b>	60
<b>Delivery model</b>	Based on teaching three-hour sessions.
<b>Aim</b>	In this unit learners will explore the issues that surround the need for sustainable resource development. Learners will be able to discuss why environmental protection is important to the business and the influence this has at all levels.
<b>Notes</b>	The three functional skills units for ICT (use ICT appropriately, find and select information, and develop, present and communicate information) are abbreviated as follows: Use ICT, F&S ICT and DPC ICT.

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
1 Sustainable resource development	<p>Define what is meant by the term 'sustainable resource development'.</p> <p>The tutor should ensure that ethical, environmental, and economic pressures are considered in the discussion. It may be that a diagrammatic representation will be helpful in highlighting linkages. Ensure the learners understand the five principles.</p> <p>Each learner must present a written report detailing the inter-linking pressures and principles in the development of a generic ELB enterprise.</p>	AC1a	IE1 SM2 CT2	SL W	3	<p><a href="http://www.defra.gov.uk/sustainable/government/what/principles.htm">www.defra.gov.uk/sustainable/government/what/principles.htm</a></p> <p><a href="http://www.defra.gov.uk/sustainable/government/publications/uk-strategy/index.htm">www.defra.gov.uk/sustainable/government/publications/uk-strategy/index.htm</a></p> <p><a href="http://www.sd-commission.org.uk/">www.sd-commission.org.uk/</a></p>
2 Environmental sustainability	<p>Considering environmental sustainability only, tutors should lead a discussion on:</p> <ul style="list-style-type: none"> <li>• what causes and effects are linked together</li> <li>• what scientific principles can be seen in action</li> <li>• what data can be gathered to validate sustainability.</li> </ul> <p>Using the ELB enterprises that harvest wood for human use, each learner should produce a report covering the environmental sustainable management of this resource and what measures should be taken to gather data to ensure the viability of this enterprise.</p>	AC1a, b	IE1 CT2	W Use ICT DPC ICT	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<b>3 Economic sustainability</b>	Considering economic sustainability only, tutors should lead a discussion on: <ul style="list-style-type: none"> <li>• what causes and effects are linked together</li> <li>• what scientific principles can be seen in action</li> <li>• what data can be gathered to validate sustainability.</li> </ul> Using the ELB enterprises that harvest salmon for human use, each learner should produce a report covering the environmental sustainable management of this resource and what measures should be taken to gather data to ensure the viability of this enterprise.	AC1a, b	IE1  CT2  SM2	SL  Use ICT  DPC ICT	3	
<b>4 Ethical sustainability</b>	Considering ethical sustainability only, tutors should lead a discussion on: <ul style="list-style-type: none"> <li>• what causes and effects are linked together</li> <li>• what scientific principles can be seen in action</li> <li>• what data can be gathered to validate sustainability.</li> </ul> Using the ELB enterprises that harvest coffee for human use, each learner should produce a report covering the environmental sustainable management of this resource and what measures should be taken to gather data to ensure the viability of this enterprise.	AC1a, b	IE1  CT2  SM2	SL  Use ICT  DPC ICT	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<p><b>5</b> Sustainable resource development revisited</p>	<p>Divide the class into four groups to discuss the sustainable resource development of cotton: one group to focus on environmental sustainability, one group – economic, one group – ethical, the fourth group to act as conciliators. The groups should work towards a positive outcome and how this outcome can be monitored to ensure the impact is within the tolerances agreed.</p> <p>Individually, learners should produce a presentation that considers all of the arguments and pressures involved in the production and harvesting of bananas and specifically states what controls should be in place, how the outcomes can be measured and what data is needed to validate the conclusions.</p>	AC1a, b	<p>TW1, 2</p> <p>EP5</p>	<p>Use ICT</p> <p>DPC ICT</p>	3	
<p><b>6</b> Introduction to habitats</p>	<p>The tutor should lead a discussion on the value of tropical rainforests as a habitat and the implications and influences that this range of habitats has on the rest of the globe.</p> <p>In groups of three, learners should research the scientific evidence that supports or contradicts the views that have been discussed. Statistical analysis must be used to project possible future scenarios if particular courses of action are taken.</p>	AC2a	<p>TW1, 2</p> <p>EP5</p>	<p>Use ICT</p> <p>DPC ICT</p>	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
7 Destruction of habitats	<p>Conduct a group discussion on what is the single biggest cause of destruction of habitats and how it happens. What have been the major pressures causing this destruction and why? What would be the result if some of the decisions that had been taken to destroy habitats were reversed? Learners must produce a report on the effects of the removal of hedgerows in England. The report is to quote and correctly cite scientific research to provide a sound basis to support the conclusions reached.</p>	AC2a	SM2  CT1	SL  Use ICT  DPC ICT	3	
8 Chain reaction of habitats	<p>Using the food web/chain concepts, learners should evaluate and report on how the change in one habitat can impact a wide variety of habitats.</p> <p>Each learner must produce a presentation on a habitat that has been destroyed. The habitat has to be chosen from a set of prepared scenarios.</p>	AC2a	SM1  IE1  CT2	Use ICT  DPC ICT	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<p><b>9</b> Why do we need sustainable resource development policies and plans?</p>	<p>Conduct a group discussion on:</p> <ul style="list-style-type: none"> <li>• What is the difference between a plan and a policy?</li> <li>• How can a policy become a plan?</li> <li>• What are the significant differences between a plan and a policy?</li> </ul> <p>Learners should create a thought shower on what elements should form a sustainable development policy and what elements should be part of a sustainable development plan.</p> <p>In groups of three, learners should bullet point a set of policy statements and a development plan for the sustainable implementation of a new mixed farm of 750 acres in the local area.</p>	<p>AC2b</p> <p>AC4a</p>	<p>TW2, 5</p> <p>CT1</p>	<p>SL</p>	<p>3</p>	
<p><b>10</b> Sustainability at what price?</p>	<p>Discuss the idea that all change comes with a price. What are the costs of implementing a sustainable resource development plan?</p> <p>What will be the effects on economic development, industrialisation, health, population growth?</p>	<p>AC3b</p>	<p>CT1, 2</p> <p>IE1</p>	<p>SL</p>	<p>3</p>	<p><a href="http://news.bbc.co.uk/1/hi/sci/tech/8189549.stm">http://news.bbc.co.uk/1/hi/sci/tech/8189549.stm</a></p>
<p><b>11</b> How can a sustainability policy be enforced?</p>	<p>The tutor should lead a discussion examining the UK sustainability policy and the enforcement of it.</p> <p>Learners must present a report on what elements of the sustainability policy are enforced and how, and also what effect this is having.</p>	<p>AC5a</p>	<p>SM2, 3</p> <p>IE3</p>	<p>Use ICT</p> <p>DPC ICT</p>	<p>3</p>	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<b>12</b> Compare and contrast UK and Alberta sustainability policy	Learners must produce a report comparing the sustainability policies and their implementation of the UK and Alberta, Canada. Learners must draw out the strengths and weaknesses of the two policies and highlight any strength or weaknesses that are shared between the two policies.	AC3a AC5a, b	SM2, 3	W  Use ICT  DPC ICT	3	
<b>13</b> The role of pressure groups in shaping policy	Invite a guest speaker from the Green Party to discuss the effect that pressure groups have had on shaping policy.  Learners must examine other pressure groups and report on the claims made by them on shaping policy.	AC3b AC5c	CT2	SL  W	3	
<b>14</b> How the world view has changed in the last 100 hundred years	'The reasonable man adapts himself to the world. The unreasonable man persists in trying to adapt the world to himself. Therefore, all progress depends on the unreasonable man.' <i>George Bernard Shaw</i> With regard to sustainability, is the statement above true or false? Learners should discuss as a class.	AC3a, b	CT2  IE3	SL  W	3	
<b>15</b> Biodiversity	Discuss the following as a class: <ul style="list-style-type: none"> <li>• What is the importance of biodiversity?</li> <li>• What are the problems with mono-cultures?</li> </ul> Learners must produce a presentation to be used with Year 9 learners to raise awareness of biodiversity and endangered species.	AC4b, c	EP2	Use ICT  F&S ICT  DPC ICT	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
16 Infrastructure part 1	<p>Define the term 'infrastructure' and say how it relates to ELB enterprises.</p> <p>Consider the effect of the different types of infrastructure; compare what infrastructure needs there are when considering plant, water, waste energy and food.</p> <p>What effect does a good infrastructure have on the success of an ELB enterprise?</p> <p>Learners must create a presentation on the value of a stable and effective infrastructure, and how this affects sustainability.</p>	AC4d	CT2 TW1	SL W	3	
17 Infrastructure part 2	<p>Learners must research the infrastructure of a nominated developing country.</p> <p>Learners should write a report comparing and contrasting the infrastructure of the UK and a developing country. What are the impacts and costs on sustainability and development?</p>	AC4d	SM2, 3 EP3	Use ICT F&S ICT DPC ICT	3	
18 How to engage the community in adopting the need for sustainability	<p>The tutor should lead a group discussion on how to engage the community in adopting sustainability as a priority.</p> <p>Each learner must produce a presentation for a target audience of a Year 6 assembly talk.</p>	AC5c	SM2, 3 EP3, 4	Use ICT F&S ICT DPC ICT	3	
19 Mock exam	Mock exam				3	
20 Feedback from exam	Conduct a class discussion on the mock exam.				3	